

REMARKS

This application has been carefully reviewed in light of the non-final Office Action dated February 22, 2007. Claim 11 has been cancelled herein, without prejudice or disclaimer of subject matter. Claims 1 to 10 and 12 to 20 remain in the application, of which claims 1, 3 to 5, 10, 12, 16, and 19 have been amended herein. Claims 1, 10, and 16 are the independent claims. Reconsideration and further examination are respectfully requested.

Initially, the Applicant's undersigned representative thanks Examiner Tecklu for the thoughtful courtesies and kind treatment afforded during the personal interview conducted on May 10, 2007. In the interview, the substance of the above-described claim amendments was discussed. Although a final determination of whether the claims overcome the applied references of record could not be made (based upon the claim amendments being merely proposed amendments in the interview), Examiner Tecklu graciously acknowledged that the amendments appeared to overcome the applied references, as well as generally advance prosecution of the application.

In the Office Action, claims 1 to 7 and 9 to 19 were rejected under 35 U.S.C. § 102 over U.S. Patent No. 6,920,456 ("Lee"); and claims 8 and 20 were rejected under 35 U.S.C. § 103(a) over Lee in view of U.S. Patent No. 6,052,684 ("Du"). As indicated above, claim 11 has been cancelled herein, without prejudice or disclaimer of subject matter, and without conceding the correctness of the associated rejection. Furthermore, independent claims 1, 10, and 16 have been amended to further clarify several additional features, as described more fully below. Since support for the newly-clarified features is described throughout the disclosure, including at least pages 31 to 51 of the specification, no new matter is believed to have been added. Reconsideration and withdrawal of the § 102 and § 103 rejections are respectfully requested.

According to the present disclosure, values of first vertices of a first matrix are determined based on interdependencies between the actual tasks, and a workflow view representing an abstraction of the workflow includes virtual tasks that each correspond to at least one of the actual tasks. Furthermore, values of second vertices of a second matrix are determined based on virtual dependencies between the virtual tasks, and one or more aggregating routing task pairs are included or inserted in the aggregated workflow, each pair configured to

bound a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task.

Referring to particular claim language, claim 1 recites a workflow model includes a workflow, the workflow including actual tasks. The workflow model also includes a first matrix including first vertices, where values of the first vertices are determined based on interdependencies between the actual tasks, and a workflow view representing an abstraction of the workflow, the workflow view including virtual tasks that each correspond to at least one of the actual tasks. The workflow model further includes a second matrix including second vertices, where values of the second vertices are determined based on virtual dependencies between the virtual tasks. The work flow model also includes an aggregate workflow compiled from the workflow and the workflow view and operable to support execution of the workflow and the workflow view within a workflow engine, the aggregated workflow including one or more aggregating routing task pairs, each routing task pair bounding a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task.

Claim 10 recites a method including modeling a workflow that includes actual tasks as a first matrix, where values of vertices of the first matrix are determined based on interdependencies between the actual tasks. The method further includes modeling a workflow view representing an abstraction of the workflow, the workflow view including virtual tasks as a second matrix, where values of vertices in the second matrix are determined based on interdependencies between the virtual tasks, and compiling the workflow view that includes the virtual tasks and the workflow including actual tasks, each virtual task corresponding to at least one actual task, into an aggregate workflow. The method also includes inserting into the aggregated workflow one or more aggregating routing task pairs, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task. The method further includes executing the aggregate workflow.

Claim 16 recites a system that includes a workflow modeler operable to model a workflow, the workflow including actual tasks, where values of vertices included in a first matrix are based on interdependencies between the actual tasks. The system also includes a view

modeler operable to model a virtual workflow as an abstraction of the workflow, the virtual workflow including virtual tasks that each correspond to at least one of the actual tasks, where values of vertices included in a second matrix are based on interdependencies between the virtual tasks. The system further includes an aggregation engine operable to combine the virtual workflow and the workflow into an aggregated workflow, the aggregated workflow including one or more aggregating routing task pairs, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual tasks is based on a status of the associated actual task.

The applied art is not seen to disclose, teach or suggest the foregoing features recited by the independent claims. In particular, Lee is not seen to disclose, nor does the Office Action assert that Lee discloses, at least the features that: *i)* values of first vertices of a first matrix are determined based on interdependencies between the actual tasks, *ii)* a workflow view representing an abstraction of the workflow includes virtual tasks that each correspond to at least one of the actual tasks; *iii)* values of second vertices of a second matrix are determined based on virtual dependencies between the virtual tasks; or *iv)* one or more aggregating routing task pairs are included in the aggregated workflow, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task.

Lee describes techniques for maintaining workflow related information in at least one table provided in a database storing workflow related data. *See* Lee at Abstract. In particular, Lee describes an automatic generation utility included in a builder program that automatically generates the workflow related tables and sets of stored procedures in a buildtime database. *See* Lee at col. 14, lines 22-25. Lee also describes an object-oriented architecture that defines how various methods interact in order to implement a workflow. *See* Lee at col. 8, lines 6-8 and FIG. 3.

Although it is true that Lee describes techniques for implementing a workflow based on predefined methods and maintaining workflow related information, nowhere is Lee seen to disclose at least the features that: *i)* values of first vertices of a first matrix are determined based on interdependencies between the actual tasks, *ii)* a workflow view representing an abstraction of the workflow includes virtual tasks that each correspond to at least one of the actual tasks; *iii)*

values of second vertices of a second matrix are determined based on virtual dependencies between the virtual tasks; or *iv*) one or more aggregating routing task pairs are included in the aggregated workflow, each pair configured to bound a virtual task and an associated actual task such that initiation of the virtual task is based on a status of the associated actual task.

Based on the foregoing arguments and remarks, independent claims 1, 10, and 16 are believed to be allowable over Lee. The other rejected claims in the application are each dependent on these independent claims and are thus believed to be allowable over the applied references for at least the same reasons. Because each claim is deemed to define additional aspects of the disclosure, however, the individual consideration of each claim on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance and such action is courteously solicited.

No fee is believed due. Nonetheless, please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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/David E. A. Jordan/
David E. A. Jordan
Reg. No. 50,325

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331